LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

COTILE LAKE

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

December 2014 - Prepared by

Richard D Moses, Biologist Manager, District 3
Richard McGuffee, Biologist Supervisor, District 3
Shelby Richard, Biologist II, District 3

The remainder of this page left intentionally blank.

TABLE OF CONTENTS

LAKE HISTORY

General Information

Date reservoir formed
Cotile Lake Dam was designed and constructed by the United States Department of Agriculture (USDA)-Natural Resource Conservation Service (NRCS) and it was completed in 1965. The concrete sill to the primary spillway was reconstructed in 1988.

Impoundment
Ownership – The Rapides Parish Police Jury (RPPJ), through an interagency agreement with the NRCS, is responsible for the maintenance and operation of the impoundment. RPPJ has established a dedicated irrigation pool drawdown to 92.5 MSL (top 13 feet of water) if needed to meet agricultural needs via Bayou Rapides.

Purposes for creation – The impoundment was primarily created for agricultural irrigation. The secondary purpose was to enhance wildlife & fisheries habitat and provide recreational opportunities for the citizens of the state.

Size
1,775 acres

Watershed
40.75 square miles (ratio 14:1) of a mixture of upland pineland and Red River agriculture lands in northwest Rapides Parish

Pool stage
105.6 mean sea level (MSL)

Parish/s located
Rapides

Drawdown description
Drawdown rate is typically 3 to 4 inches per 24 hour period. The maximum drawdown capability is undocumented; however, according to elevations listed in Louisiana Department of Transportation and Development (LADOTD) dam inspection documents, the water level can be lowered 16 feet.

Spillway
The principle spillway is an un-gated chute-type spillway, constructed of reinforced concrete. It is 175 feet wide, with a crest elevation of 105.6 feet MSL. The spillway is located on the west end of the dam.

Description of the Dam

Cotile Lake Dam consists of an earthen embankment and an attached 175 foot wide principal spillway having a total length of 6,040 feet. The discharge flows into Bayou Jean de Jean and then into the Red River north of Boyce, Louisiana. There is a drawdown structure 500 feet east of the spillway that discharges into Bayou Jean de Jean. There is an irrigation drawdown structure near the east end of the dam that discharges water into Bayou Rapides. This structure is used to provide farmers along Bayou Rapides with water for agricultural irrigation (See Appendix I).

Dam height is 31 feet.
Structural height is 36 feet.
Hydraulic height is 31 feet.
Maximum discharge is 45,250 cubic feet per second
Maximum storage is 49,000 acre-feet.
Normal storage is 25,000 acre-feet.
Surface area is 1,775 acres.
Drainage area is 40.75 square miles.

Outlet Works (Drawdown Structure)

The outlet works consist of a reinforced concrete tower with a submerged gate and above water valve stem and operators platform. There is a 60-inch reinforced concrete pipe going through the embankment to a rock lined plunge pool north of the embankment. The pipe is topped with a slide gate.

Outlet Works (Irrigation Structure)

The irrigation structure consists of a reinforced concrete intake tower with 2-54 inch diameter concrete pipes, topped with gates to discharge irrigation water into Bayou Rapides.

Who controls

The drawdown and irrigation structures are opened on an as-needed basis for irrigation. Gate opening is handled by the RPPJ. Openings at the request of LDWF for habitat or fisheries management purposes must be approved by RPPJ.

Lake Authority

Cotile Lake Reservoir is owned by the Rapides Parish Police Jury. Through interagency agreement with the United States Department of Agriculture, Natural Resource Conservation Service, RPPJ is responsible for maintenance and operation of the impoundment.
Primary contact information:
Rapides Parish Police Jury
P.O. Box 1150
Alexandria, LA. 71309
Tel: 318-473-6660
Fax: 318-473-6670
http://www.rppj.com

Lake Association
Citizen's Group- Cotile Lake Environmental Association

Access

Maps with locations (see Appendix II)

1. Cotile Lake Recreation Area Boat Ramp – 4 –lane concrete ramp- Fee Required
2. Hwy 1240 Boat Ramp –Concrete Ramp – 1-lane – No fee

Boat docks
No public boat docks

Piers
A public fishing pier is available. It is located within the Cotile Lake Recreational Area. Access is limited to the recreational area hours of operation.

State/Federal Facilities
Cotile Lake Recreation Area is located on the shoreline of the reservoir and is owned and operated by the Rapides Parish Police Jury. The recreation area is used extensively for camping. It also has a designated swimming area and a 4 - lane concrete boat launch. Further information concerning the area can be found at the following link.
http://www.hikercentral.com/campmaps/105339map.html

State/National Parks
None

Shoreline development by landowners
Approximately 40% of the shoreline is developed by landowners with homes and camps. The majority of the shoreline property is owned by private timber companies and is managed for timber production.

Physical Description of lake

Shoreline length
24.5 miles

Timber type
Cotile Lake is an open water lake. Approximately 40% of the lake has visible dead timber above the water line. No live timber is found in the lake.

Average depth
10 feet

Maximum depth
28 feet

Natural seasonal water fluctuation
Due to the small watershed (14:1), water levels rarely rise above the normal pool elevation. However, normal low water fluctuations of 1' to 2' are common due to agricultural irrigation.

Events / Problems

Since 2001, Cotile Lake has been plagued by the invasive aquatic plant, hydrilla (*Hydrilla verticillata*). It is currently causing problems for recreational users of the lake. However, the complex cover provided by hydrilla is associated with some benefit to sport fisheries.

MANAGEMENT ISSUES

Aquatic Vegetation

Since 2001, Cotile Lake has been plagued by hydrilla. At one point in the early 2000's, approximately 40% of the lake was covered with submergent vegetation. Giant salvinia was discovered in 2008. Herbicide applications (i.e., spraying) 2 to 4 days per month have prevented it from becoming problematic.

Observations of July 25, 2012 indicated the majority of Cotile Lake to be clear of problem vegetation. However, the Williamson Arm area of the lake was infested with hydrilla. Approximately 200 acres of hydrilla were matted to the surface and were restricting fishing and boating access. Numerous complaints were received from home and camp owners from this area of the lake. Without control measures, the existing hydrilla had the potential to spread throughout the lake. At the time of the survey, there were less than 100 acres of giant salvinia and less than 100 acres of water hyacinth along the fringe of the lake. Other vegetation observed included American lotus, white water lily, and pondweeds. The combined coverage area of these species is less than 100 acres. A narrow fringe of torpedograss (*Panicum repens*) was observed along the shoreline around the majority of the lake. The plant is not problematic and helps to reduce shoreline erosion.

A vegetation survey was conducted on March 20, 2013 in the Williamson Arm and nearby coves. Hydrilla was greatly reduced from coverage observed in July 2012. The change was attributed to high water levels and the associated increase in turbidity. Hydrilla was observed to be present in scattered fragments. No mats were observed. Boating access was not restricted in the surveyed area. At the time of the March 2013 survey, combined acreage of giant salvinia and water hyacinth was less than 100 acres.

By mid-summer 2013, hydrilla was once again becoming problematic in the Williamson Arm area and numerous complaints were being received. An aquatic vegetation survey

was conducted on October 7, 2013. Hydrilla had continued to spread, and isolated patches could be found throughout most areas of the lake. Hydrilla acreage was approximately 300 acres. Giant salvinia and water hyacinth acreage was less than 50 acres combined.

Type map

A total of 16 vegetation surveys (type maps) have been conducted on Cotile Lake between 1980 and 2014. The surveys were conducted in 1980, 1981, 1982, 1983, 1984, 1988, 1991, 1992, 1993, 1995, 1997, 1999, 2000, 2001, 2012, and 2013, and 2014. Recent vegetative type maps can be viewed in Appendix III.

Biomass

No vegetation biomass sampling has been conducted.

Biological

Triploid grass carp (TGC), when stocked at the appropriate rates, have proven to be effective at controlling submergent vegetation, especially hydrilla. Due to the limited effectiveness of herbicide treatments, and the numerous problems associated with the use of drawdowns, triploid grass carp were introduced as a control measure. Triploid grass carp (TGC) were stocked into the Cotile Lake on December 18, 2013. The TGC were stocked at a rate of 3 fish per vegetated acre. A total of one thousand (1,000) carp greater than 12" long were released. One thousand (1,000) TGC were stocked into the lake on December 18, 2013. Annual vegetation surveys are being conducted each summer (July - August) to determine the success of the TGC in reducing hydrilla growth. Additional TGC stocking may be considered in 3 to 5 years if needed.

Chemical

LDWF spray crews utilize foliar herbicide applications as periodic complaints are received from the public. Also, maintenance spraying is conducted 2 to 4 days per month, primarily to prevent the spread of giant salvinia. At this time the invasive plant is not causing serious problems. For a complete summary of Cotile Lake herbicide applications see Table 1.

Treatment History

Herbicide applications in the past have been applied at the following rates:

Glyphosate (Aquamaster, Aquastar, etc.): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, and giant and common salvinia during the active growing period.

Diquat (Tribune, Reward, Knockout): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, and giant and common salvinia during the slower growing period or winter months.

Imazapyr (Arsenal, Ecomazapyr, Polaris): Used at a rate of 0.5 gallons per acre to treat alligator weed and water primrose.

Surfactant added at a rate of 1:4 (surfactant: herbicide) for all herbicides.

Table 1. Aquatic herbicide treatment history for Cotile Lake, Louisiana.

Year	Acres Treated	Vegetation
2006	125	Common Salvinia
	63	Water Hyacinth
2007	1	Alligator weed
	21	Common Salvinia
	7	Water Hyacinth
2008	43	Alligator Weed
	60	Common Salvinia
	38	Giant Salvinia
	67	Water Hyacinth
2009	36	Alligator Weed
	13	Common Salvinia
	92	Giant Salvinia
	16	Water Hyacinth
2010	24	Alligator Weed
	5	American Lotus
	110	Giant Salvinia
	7	Water Hyacinth
2011	8	Alligator Weed
	5	Common Salvinia
	169	Giant Salvinia
	1	Water Hyacinth
2012	17	Alligator Weed
	17	Common Salvinia
	427	Giant Salvinia
	34	Water Hyacinth
2013	21	Alligator Weed
	6	American Lotus
	47	Common Salvinia
	853	Giant Salvinia
	14	Water Hyacinth
2014	15	Alligator Weed
	14	American Lotus
	106	Giant Salvinia

Future herbicide applications for the treatment of giant and common salvinia will be in accordance with the LDWF Aquatic Herbicide Application Procedures. Schedule and rates are listed below:

April 1-October 31: glyphosate (0.75 gal/acre)/diquat (0.25 gal/acre)/Aqua King Plus (0.25 gal/acre)/ Thoroughbred (12 oz. /acre)

November 1 – March 31: diquat (0.75 gal./acre)/surfactant (0.25 gal/acre).

History of Regulations

Recreational
The recreational fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/fishing/regulations

Commercial
The commercial fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/fishing/regulations

Rapides Parish Ordinance Article I, Section 19.5 -1. Rules and Regulations for Recreational Areas; Part B (4) b3. – prohibits the use of fishing nets, seines, slat traps or similar devices. The complete Rapides Parish Ordinance can be viewed at the following link. This regulation has not been officially adopted as state law and cannot be enforced by the LDWF enforcement division personnel. The Rapides Parish Sheriff's Office is responsible for enforcement of the ordinance. http://library.municode.com/index.aspx?clientId=10429

Drawdown history
Cotile Lake drawdowns have been conducted for hydrilla control. However, the dewaterings are a potential conflict with the primary use of the reservoir (i.e., irrigation). Cotile Lake has a small watershed (14:1) and extensive rainfall is required to refill the lake. The RPPJ have expressed concerns that the reservoir may not refill in a timely manner following a drawdown greater than 8 feet below pool stage. Complete drawdown history in Table 2 below.

Table 2. Complete drawdown history of Cotile Lake, Louisiana.

DRAWDOWN HISTORY				
Date Opened	Date Closed	Purpose	Results	Notes
Sept 30, 1971	Jan 15, 1972	Submersed vegetation control	Unknown	4.5' drawdown
Summer 1987	Fall 1988	Spillway Repairs	Unknown	Spillway repairs were completed
Sept 6, 2001	Jan 1, 2001	Vegetation Control/Hydrilla	Excellent	10' drawdown
Sept 1, 2007	Jan 31, 2008	Bridge repair/ vegetation control/Hydrilla	Successful	Short term benefits

Purpose
Drawdowns have been conducted to provide hydrilla control.

Success
Drawdowns have provided a temporary reduction in hydrilla biomass for waters exposed to desiccation. The 10' drawdown conducted in 2001 provided excellent hydrilla control, but was associated with limited acceptance by RPPJ. Their concerns are related to the fact that drawdowns conflict with the primary purposed for lake construction (i.e., irrigation). Hydrilla has been quick to re-grow following drawdowns. In most years, re-growth is evident in the second growing season following the drawdown.

Fishing closure
The lake has not been closed to fishing during the drawdowns.

Depth below pool
The maximum depth below pool during a drawdown has been 10' feet. However, according to elevations listed in Louisiana Department of Transportation and Development (LADOTD) dam inspection documents, the water level can be lowered 16 feet.

Estimated % exposed
Approximately 35% of the lake bottom is exposed during a 10' drawdown.

Who operated structure?
Drawdown structure gate opening is handled by RPPJ.

Fish kills
No documented fish kills have occurred during drawdowns or at any other time.

Fish kills / Disease history
Thirty-four largemouth bass were tested for largemouth bass virus (LMBV) in 2002. All tested negative. No additional fish kill or disease history is documented.

Contaminants / Pollution

No documented records of contaminants or pollution have been located in the files. There are no current fish consumption advisories in effect for Cotile Lake. However, annual updates can be found at the DEQ and LDWF links below.
http://www.deq.louisiana.gov/portal/tabid/2201/Default.aspx
http://www.wlf.louisiana.gov/fishing/fish-consumption-advisories

Water level
Normal pool elevation for Cotile Lake is 105.6' M.S.L. Water levels do not fluctuate greatly due to the small watershed, but reductions of 1' to 2' below pool elevation do occur.

Biological

Fish sampling

Table 3. Historical and proposed fisheries sampling for Cotile Lake, Louisiana.

YEAR	SAMPLING GEAR
1969, 1971-1972	Rotenone – 6 stations
1973	Rotenone – 3 Stations
1975-1976	Rotenone – 6 Stations
1979	Rotenone – 5 Stations
1981-1982	Rotenone – 6 Stations
1985-1987	Rotenone – 6 Stations
1990	Electrofishing Boom (Spring 3 Stations, Fall 2 Stations); Forage (Fall 2 Stations);
1991	Electrofishing Boom (Spring 2 Stations)
1992	Electrofishing Boom (Fall 1 Station)
1993	Electrofishing Boom (Spring 2 Stations); Rotenone – 4 Stations
1994	Electrofishing Boom (Spring 2 Stations, Fall 2 Stations); Forage (Fall 1 Station)
1995	Electrofishing Boom (Spring 2 Stations, Fall 1 Station); Forage (Fall 1 Station)
1998	Frame Nets (Summer 5 Stations, Fall 6 Stations); Electrofishing (Spring 6 Stations, Fall 4 Stations); Seine (Summer 6 Stations); Rotenone – 4 Stations
1999	Gill Net (Winter 6 Stations); Electrofishing (Spring 6 Stations, Fall 4 Stations);
2000-2001	Seine (Summer 3 Stations)
2002	Electrofishing (Spring and Fall 4 stations)
2003	Frame Net (Winter 1 Station); Lead Nets (Winter 2 Stations)
2004	Gill Nets (Winter 3 Stations); Frame Net (Winter 2 Stations); Electrofishing (Spring 4 Stations, Fall 4 Stations); Lead Nets (Winter 2 Stations)
2006	Gill Nets (Winter 3 Stations); Electrofishing (Spring 4 Stations, Fall 4 Stations)
2008	Gill Nets (Winter 3 Stations); Electrofishing (Spring 4 Stations, Fall 4 Stations)
2009	Lead Nets (Fall 4 Stations – 20 Samples); Electrofishing (Spring 4 Stations)

2010	Lead Nets (Fall 4 Stations – 20 Samples)
2013	Electrofishing (Spring 4 Stations, Fall 4 Stations); Forage (Fall 1 Station)
2017	Electrofishing (Spring 4 Stations, Fall 4 Stations); Forage (Fall 1 Station)

Lake records

No official records are kept for Cotile Lake.

Stocking History

Florida largemouth bass (FLMB) were stocked into Cotile Lake 12 times since 1994. A total of 253,802 FLMB have been stocked. Genetic testing in 2006 and 2008 indicated 14 and 11 percent of the largemouth bass population contained FLMB alleles, respectively. All bass samples were intergrades between northern largemouth bass and Florida largemouth bass. No genetically pure FLMB were collected.

Table 4. Fish stocking records for Cotile Lake, Louisiana, from 1994 – 2014.

Year	Florida bass	Channel Catfish	Blue Catfish	Triploid Grass Carp
1994	20,079	51,484	15,282	-
1995	42,750	19,000	-	-
1996	3,250	-	-	-
1999	21,674	5,112	-	-
2000	30,607	-	-	-
2001	24,725	-	-	-
2002	21,309	-	-	-
2003	23,119	16,017	-	-
2007	17,540	-	-	-
2008	18,525	-	-	-
2013	10,028	-	-	1,000
2014	20,196	-	-	-

Genetics

Electrophoretic analyses of Cotile Lake largemouth bass was conducted in 2006 and. Results are provided in Table 5.

Table 5. Genetics of largemouth bass in Cotile Lake, Louisiana from 2006 and 2008

Year	% Northern	% Florida	% Hybrid	% Florida Influence
2006	86	0	14	14
2008	89	0	11	11

Species profile

As per Freshwater Fishes of Louisiana by Dr. Neil H. Douglas, fish species listed below have been collected or are likely to occur in Cotile Lake.

Lamprey Family, PETROMYZONTIDAE
Southern brook lamprey, *Ichthyomyzon gagei* Hubbs and Trautman
Chestnut lamprey, *Ichthyomyzon castaneus* Girard

Gar Family, LEPISOSTEIDAE
- Spotted gar, *Lepisosteus oculatus* (Winchell)
- Longnose gar, *Lepisosteus osseus* (Linnaeus)
- Shortnose gar, *Lepisosteus platostomus* Rafinesque
- Alligator gar, *Lepisosteus spatula* Lacépède

Bowfin Family, AMIIDAE
- Bowfin, *Amia calva* Linnaeus

Freshwater Eel Family, ANGUILLIDAE
American eel, *Anguilla rostrata* (Lesueur)

Herring Family, CLUPEIDAE
- Gizzard shad, *Dorosoma cepedianum* (Lesueur)
- Threadfin shad, *Dorosoma petenense* (Günther)

Minnow Family, CYPRINIDAE
- Blacktail shiner, *Cyprinella venusta* (Girard)
- Common Carp, *Cyprinus carpio* Linnaeus
- Cypress minnow, *Hybognathus hayi* Jordan
- Striped shiner, *Luxilus chrysocephalus* Rafinesque
- Golden shiner, *Notemigonus crysoleucas* (Mitchill)
- Emerald shiner, *Notropis atherinoides* Rafinesque
- Taillight shiner, *Notropis maculatus* (Hay)
- Weed shiner, *Notropis texanus* (Girard)
- Mimic shiner, *Notropis volucellus* (Cope)
- Bullhead minnow, *Pimephales vigilax* (Baird and Girard)
- Creek chub, *Semotilus atromaculatus* (Mitchill)

Sucker Family, CATOSTOMIDAE
- Lake chubsucker, *Erimyzon sucetta* (Lacépède)
- Smallmouth buffalo, *Ictiobus bubalus* (Rafinesque)
- Bigmouth buffalo, *Ictiobus cyprinellus* (Valenciennes)
- Black buffalo, *Ictiobus niger* (Rafinesque)
- Spotted sucker, *Minytrema melanops* (Rafinesque)

Freshwater Catfish Family, ICTALURIDAE
- Black bullhead, *Ameiurus melas* (Rafinesque)

Yellow bullhead, *Ameiurus natalis* (Lesueur)
Tadpole madtom, *Noturus gyrinus* (Mitchill)
Channel Catfish, *Ictalurus punctatus*
Flathead Catfish, *Pylodictis olivaris* (Rafinesque)

Pike Family, ESOCIDAE
Grass pickerel, *Esox americanus vermiculatus* (Lesueur)
Chain pickerel, *Esox niger* (Lesueur)

Pirate Perch Family, APHREDODERIDAE
Pirate perch, *Aphredoderus sayanus* (Gilliams)

Killifish Family, CYPRINODONTIDAE
Golden topminnow, *Fundulus chrysotus* (Günther)
Starhead topminnow, *Fundulus nottii* (Agassiz)
Blackstripe topminnow, *Fundulus notatus* (Rafinesque)
Blackspotted topminnow, *Fundulus olivaceus* (Storer)

Livebearer Family, POECILIIDAE
Western mosquitofish, *Gambusia affinis* (Baird and Girard)

Silverside Family, ATHERINIDAE
Brook silverside, *Labidesthes sicculus* (Cope)

Temperate Bass Family, PERCICHTHYIDAE
White bass, *Morone chrysops* (Rafinesque)
Yellow bass, *Morone mississippiensis* (Jordan and Eigenmann)
Striped bass, *Morone saxatilis* (Walbaum)

Sunfish Family, CENTRARCHIDAE
Banded pygmy sunfish, *Elassoma zonatum* (Jordan)
Green sunfish, *Lepomis cyanellus* (Rafinesque)
Warmouth, *Lepomis gulosus* (Cuvier)
Orangespotted sunfish, *Lepomis humilis* (Girard)
Bluegill, *Lepomis macrochirus* (Rafinesque)
Dollar sunfish, *Lepomis marginatus* (Holbrook)
Longear sunfish, *Lepomis megalotis* (Rafinesque)
Redear sunfish, *Lepomis microlophus* (Günther)
Spotted sunfish, *Lepomis punctatus* (Valenciennes)
Bantam sunfish, *Lepomis symmetricus* (Forbes)
Florida largemouth bass, *Micropterus floridanus* (Kassler et al)
Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)
White crappie, *Pomoxis annularis* (Rafinesque)
Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Perch Family, PERCIDAE
Swamp darter, *Etheostoma fusiforme* (Girard)
Slough darter, *Etheostoma gracile* (Girard)

Drum Family, SCIAENIDAE
Freshwater drum, *Aplodinotus grunniens* (Rafinesque)

Threatened/endangered/exotic species
None documented.

Angler Creel Survey
No creel survey has been conducted on Cotile Lake.

Hydrological Changes

Hydrological changes have been minimal since the lake was created in 1965. Development around the shoreline has been limited because the majority of the shoreline is owned by private timber companies and is managed for timber production.

Water Use

Irrigation
Cotile Lake was built to provide water for irrigation. Water is released from the lake as needed through a series of bayous to provide downstream farms with irrigation water.

Hunting
Hunting on Cotile Lake is governed by the Rapides Parish Police Jury. The lake is utilized for duck hunting. Statewide regulations apply except that permanent duck blinds must be permitted by RPPJ.

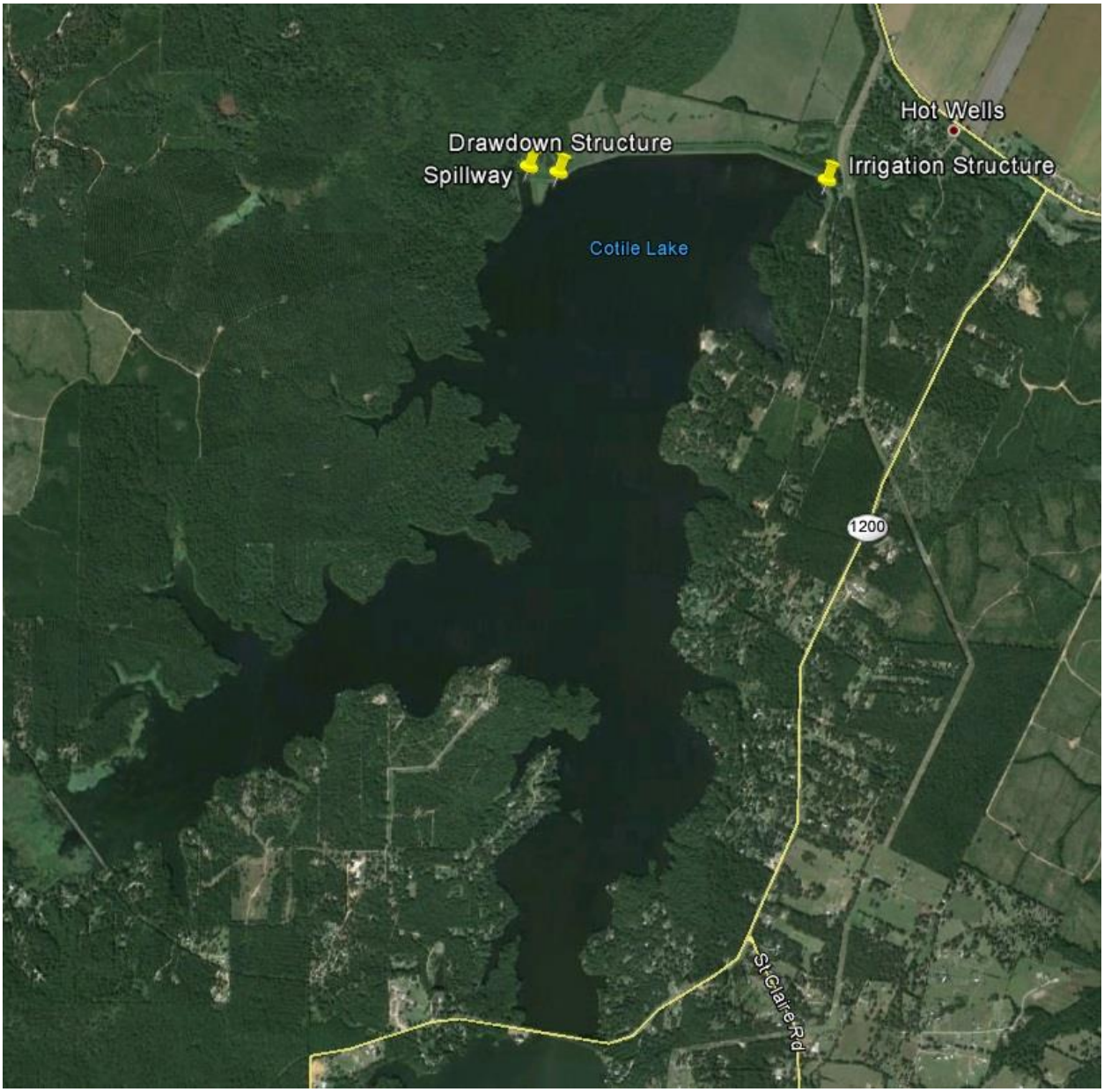
Recreational watersports
Recreational water sports are popular on Cotile Lake. Those pursuits include: water skiing, personal watercraft, and other recreational boating. Much of the lake is not suitable for water sports but the north end along the levee has few underwater hazards.

Fishing
Cotile Lake is utilized extensively for recreational fishing -- primarily for largemouth bass and crappie.

Scuba Diving
Minimal scuba diving is done on Cotile Lake due to limited water clarity.

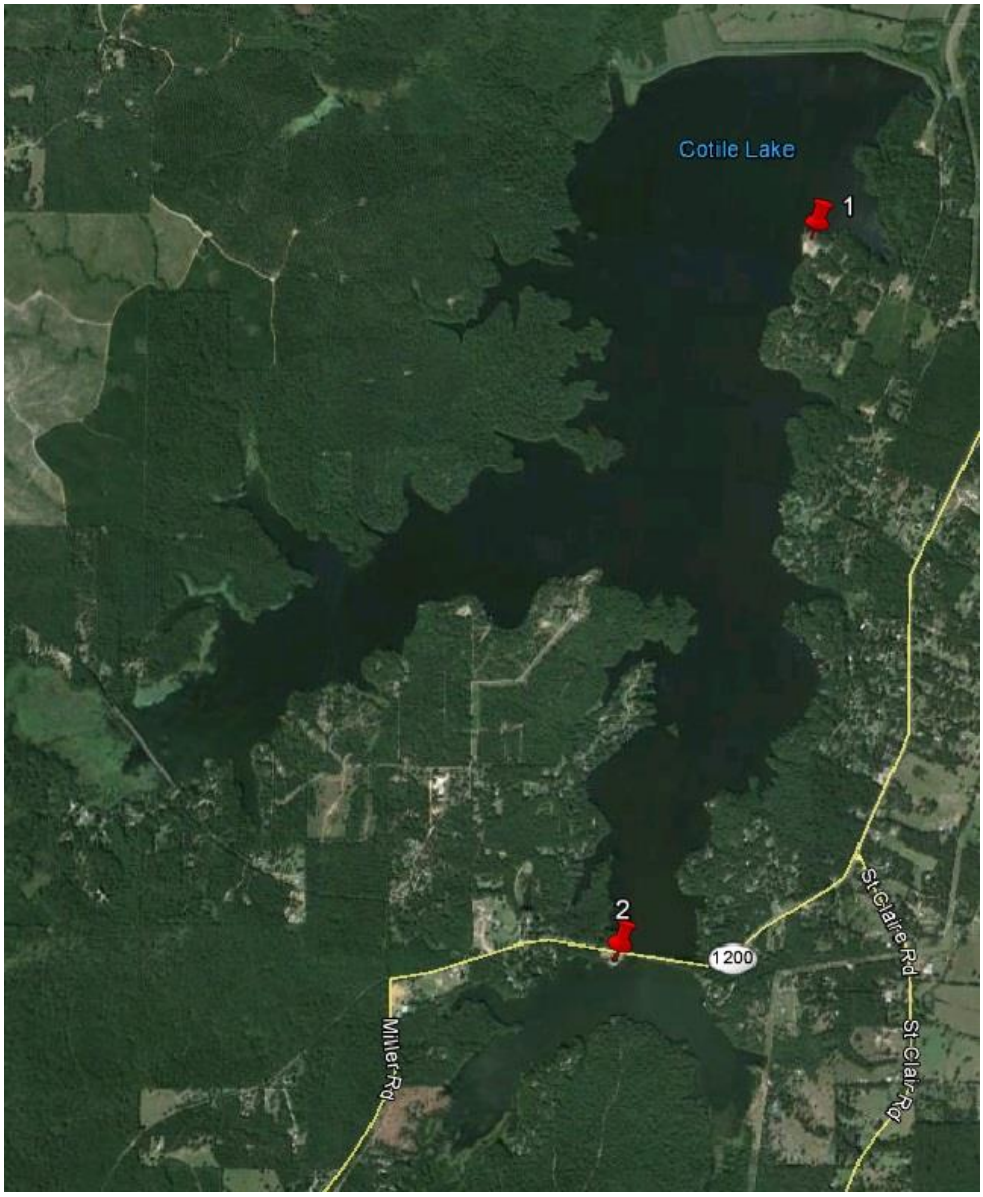
Swimming
The Cotile Lake Recreation Area includes a popular swimming beach.

Appendix I



Cotile Lake map with locations of spillway and water control structures in Boyce, Louisiana.

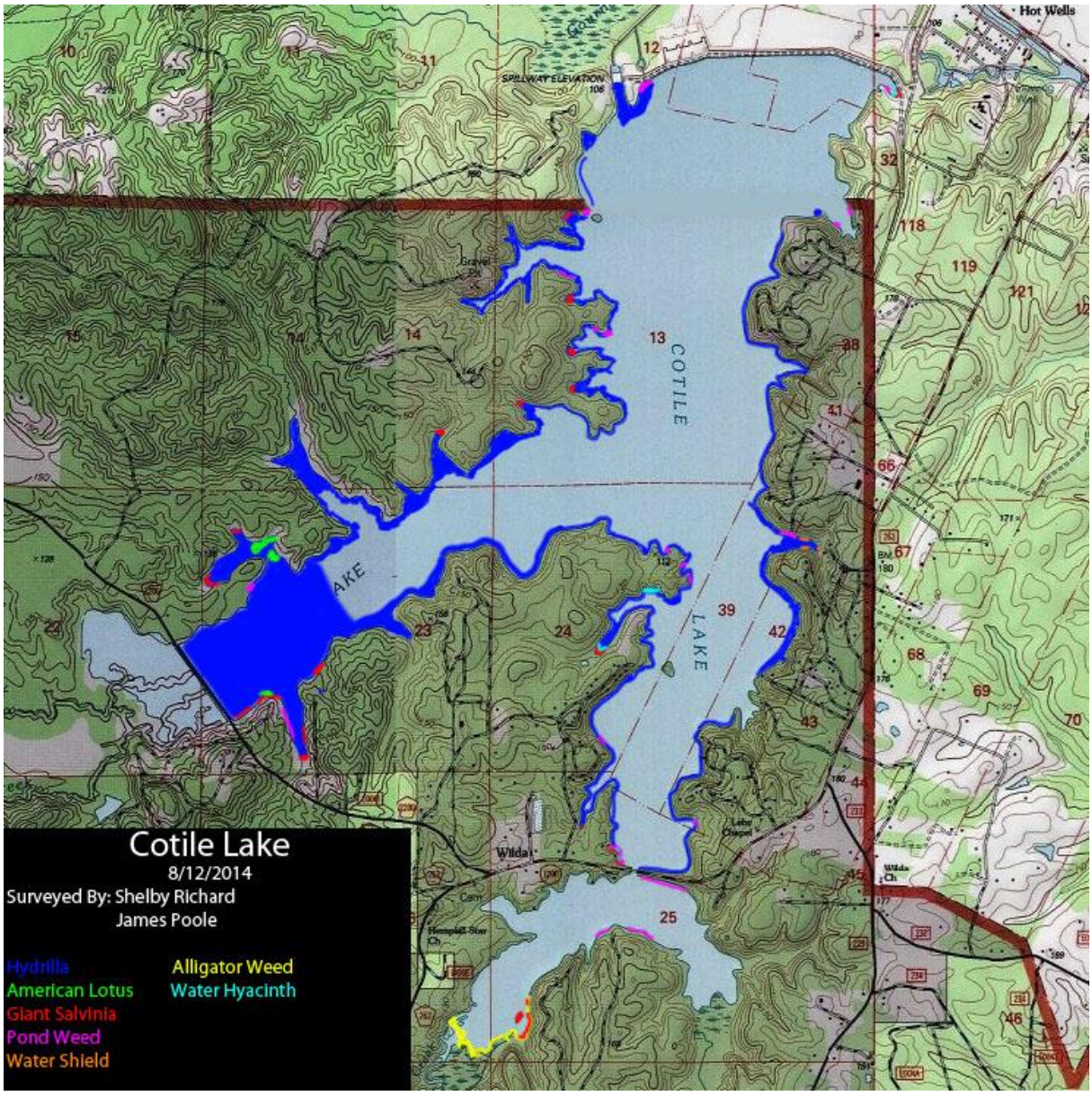
Appendix II
(Return to Access)



Cotile Lake Boat Ramp Locations in Rapides Parish, Louisiana.

1 – RPPJ Recreation Area Boat Ramp
2 – Hwy 1200 Bridge Boat Ramp

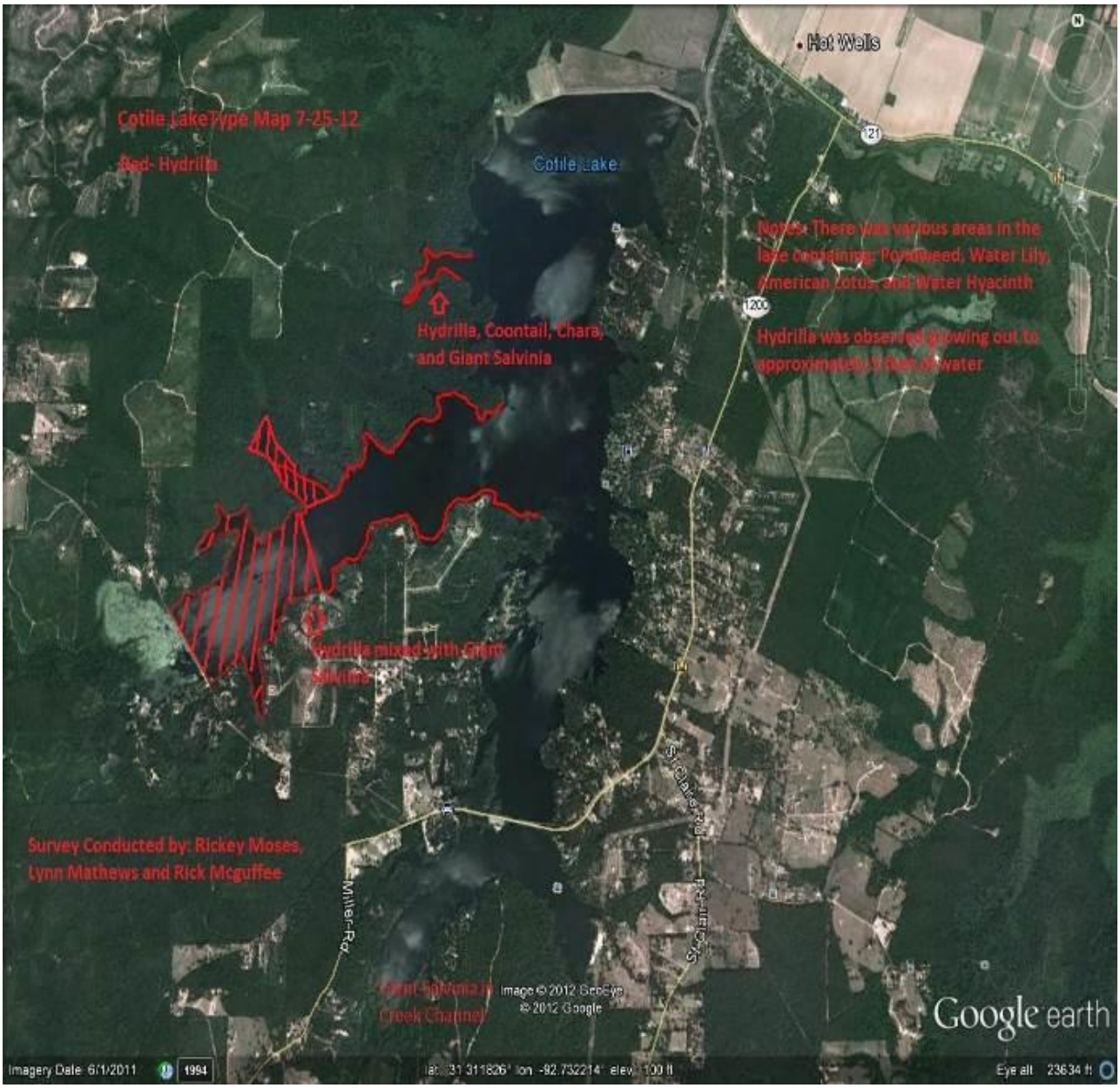
Appendix III



Vegetative type map for Cotile Lake, Rapides Parish, Louisiana August 2014

The only significant vegetation problem was hydrilla. Coverage was less than 20 percent of the lake. The major concern is that it has spread through much of the lake the past two years. Compare coverage with the 2012 type map below.

Type Map 2012 (Conducted on July 25, 2012)



Vegetative Type Map 2012

A vegetation survey was conducted on Cotile Lake on July 25, 2012. Overall the lake was in good condition. South of Hwy 1200 giant salvinia was scattered, no large mats were observed. North of Hwy 1200 giant salvinia was observed scattered throughout the lake. It was very sporadic and no mats were observed. Total coverage in the lake was less than 50 acres.

Water hyacinth was found scattered throughout the lake; giant salvinia was usually mixed

with it. There were no mats of water hyacinth and total coverage in the lake was less than 100 acres. Other vegetation observed included American Lotus, white water lily, and pondweed. Acreage for these species combined was less than 100 acres.
There is a narrow fringe of torpedograss (*Panicum repens*) along the majority of the shoreline. This provides benefits by reducing shoreline erosion and providing fish habitat.
The only serious vegetation problem on the lake is in the west end Williamson Arm. There is approximately 200 acres of hydrilla that is matted to the surface in this portion of the lake. It is causing serious access problems for home and camp owners. See map above.

Conducted by
Ricky Moses
Lynn Mathews
Rick McGuffee